



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION

Machine Id
HIAB 220609 - SUBURBAN PROPANE

Component
Hydraulic System

Fluid
AW HYDRAULIC OIL ISO 46 (--- QTS)

RECOMMENDATION

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0803634	---	---
Sample Date		Client Info		23 May 2023	---	---
Machine Age	hrs	Client Info		2020	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Changd	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	1	---	---
Chromium	ppm	ASTM D5185m	>10	0	---	---
Nickel	ppm	ASTM D5185m	>10	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>10	6	---	---
Lead	ppm	ASTM D5185m	>10	0	---	---
Copper	ppm	ASTM D5185m	>75	<1	---	---
Tin	ppm	ASTM D5185m	>10	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

Moderate concentration of visible dirt/debris present in the oil.

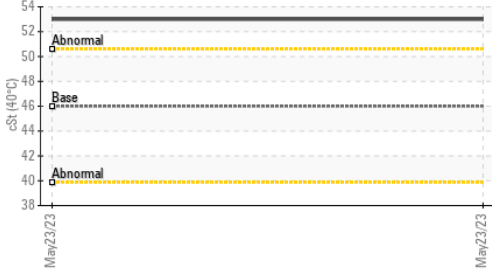
Silicon	ppm	ASTM D5185m	>20	2	---	---
Potassium	ppm	ASTM D5185m	>20	<1	---	---
Water		WC Method	>0.1	NEG	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	▲ MODER	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---	---

FLUID CONDITION

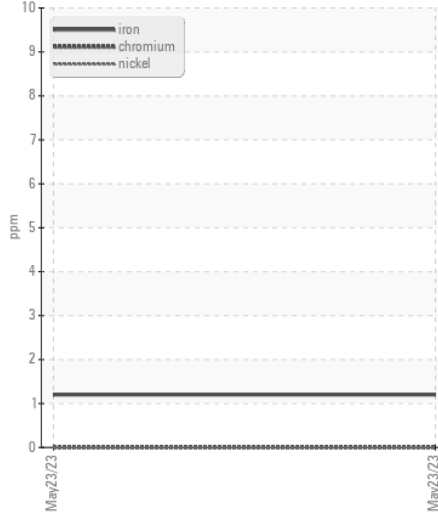
The oil viscosity is higher than normal. Confirm oil type. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		0	---	---
Boron	ppm	ASTM D5185m	5	0	---	---
Barium	ppm	ASTM D5185m	5	0	---	---
Molybdenum	ppm	ASTM D5185m	5	<1	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m	25	<1	---	---
Calcium	ppm	ASTM D5185m	200	58	---	---
Phosphorus	ppm	ASTM D5185m	300	348	---	---
Zinc	ppm	ASTM D5185m	370	450	---	---
Sulfur	ppm	ASTM D5185m	2500	1595	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.28	---	---
Visc @ 40°C	cSt	ASTM D445	46	▲ 53.0	---	---
Visc @ 100°C	cSt	ASTM D445	6.7	8.26	---	---
Viscosity Index (VI)	Scale	ASTM D2270	97	127	---	---

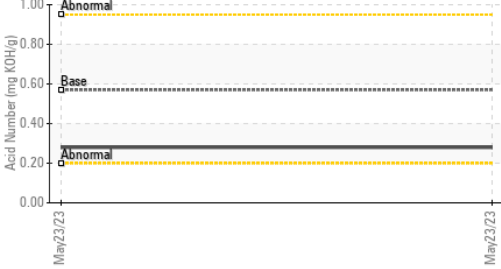
▲ Viscosity @ 40°C



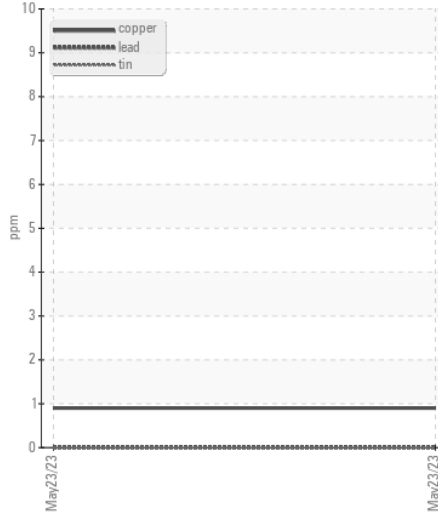
Ferrous Alloys



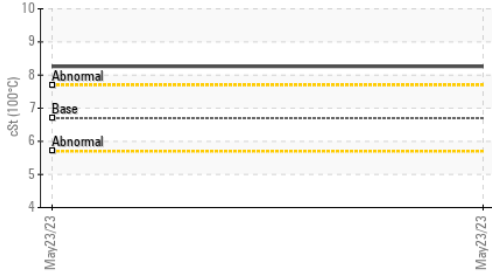
Acid Number



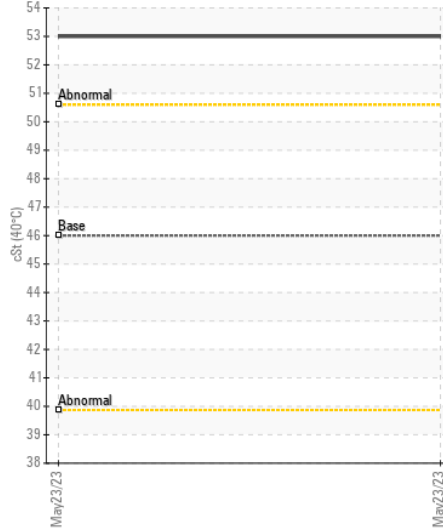
Non-ferrous Metals



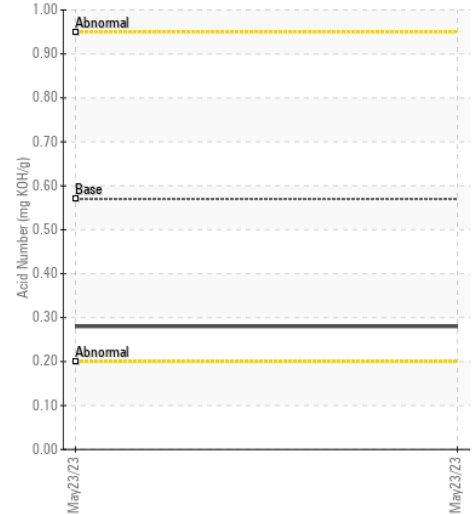
Viscosity @ 100°C



▲ Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0803634 **Received** : 20 Jun 2023
Lab Number : 05878839 **Diagnosed** : 28 Jun 2023
Unique Number : 10523942 **Diagnostician** : Jonathan Hester
Test Package : MOB 2 (Additional Tests: KV100, VI)

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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